

## **REMARKS**

Reconsideration of the application is requested in view of the above amendments and the following remarks. Claim 35 is amended the amendments to claim 35 are supported by Figure 8 and the related description at columns 21-23 of the issued patent. Claims 1-40 are pending in the application.

Claims 35-37 and 40 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Abe (U.S. 6,049,691) in view of Yoneda et al. (U.S. 5,752,148). Applicants respectfully traverse this rejection.

Abe discloses the transmission of heat from a heat generating member to a belt at a nip portion. Thus, the heat generated by the heat-generating member at the nip portion is directly transmitted to an image on a recording material via a film, thereby fixing the image.

Yoneda discloses a belt 5 that acts as a heat-generating member, and a roller 33b that serves as a tension roller and does not include heat-generating characteristics (see column 9, lines 13-25 of Yoneda). Yoneda further discloses a magnetization member 15d that does not provide any heat generating function but serves as part of the “heating device.” The magnetization member 15d is positioned outside of the nip portion and the heat-generating belt 5 is arranged at the nip portion.

Neither Abe nor Yoneda discloses a heat-generating member that “contacts a contact part of the film that is arranged so as to be opposed to the magnetization member at a different position from that of the nip portion, and transmits generated heat to the film at the contact part,” as required by claim 35. The heat generating members disclosed by Abe and Yoneda are not arranged at a different position from that of the nip portion and therefore cannot provide the added advantage of versatility in material, shape and heat capacity of the image-heating device as is provided by the device of claim 35. In view of the above, Applicants submit that Abe and Yoneda fail to disclose every limitation and certain advantages of claims 35-37.

Further to the above, Applicant submits that the devices disclosed by Abe and Yoneda have the following disadvantages as compared to the image device of claim 35.

In general, a large pressure is required in order to form a nip portion and to fix an image at the nip portion. Abe discloses generation of a necessary nip pressure using the heat-generating member. Therefore, a supporting member having sufficient strength (e.g., film guide 16a) is required for supporting the heat-generating member. The use of such a supporting member results in high heat loss and consequently the temperature of the heat-generating member cannot rise rapidly. If the heat-generating member of Abe were to be designed to have sufficient strength independent of a supporting member, the heat capacity of the heat-generating member would be significantly increased, ~~such that~~ the temperature of the heat-generating member could not rise rapidly.

(As a result)

In contrast, the heat-generating member of claim 35 contacts the film at a different position from that of the nip portion and the heat-generating member “contacts a contact part of the film . . . and transmits generated heat to the film at the contact part.” Because the heat generating member is not required to provide a sufficient pressure to form a nip portion, the required strength of the heat generating member is minimized, resulting in a greater selection of shapes, materials and holding methods for the heat generating member for an optimum thermal design.

A further purpose of Abe is to attempt to fix an image by giving off heat from the heat-generating member via a belt at the nip portion. Since the length of the nip portion in the movement direction is small, sufficient heat cannot be transmitted at higher process speeds, which makes it impractical to increase a process speed of the image-heating device beyond certain limits. In contrast, the image-heating device of claim 35 transmits heat to a film at a position separate from the nip portion such that the characteristics of the nip portion do not affect the ability to transfer heat from the heat-generating member to the belt. Therefore, claims 35-37 and 40 are allowable for these additional reasons.

Claim 38 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Abe in view of Yoneda, and further in view of Hayasaki et al. (U.S. 5,819,150). Applicants respectfully traverse this rejection. As discussed above, Abe and Yoneda fail to disclose or suggest every limitation of claim 35. Hayasaki fails to remedy the deficiencies of Abe and Yoneda as they

relate to claim 35. Therefore, claim 38 is allowable for at least the reason it is dependent upon an allowable base claim.

Claim 39 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Abe in view of Yoneda and further in view of Okabayashi et al. (U.S. 5,822,669). Applicants respectfully traverse this rejection. As discussed above, Abe and Yoneda fail to disclose or suggest every limitation of claim 35. Okabayashi fails to remedy the deficiencies of Abe and Yoneda as they related to claim 35. Therefore, claim 39 is allowable for at least the reason it is dependent upon an allowable base claim.

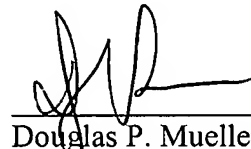
In view of the above, Applicants request reconsideration of the application in the form of a Notice of Allowance.

Respectfully submitted,

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Date: \_\_\_\_\_

January 7, 2004



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